

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A synthetic peptide trimer in which comprising three peptides of the same chain length, wherein said peptides having have the repeating unit of as a fundamental structure represented by the formula:

-(-Gly-X-Y)-

as the fundamental structure and wherein X and Y each represent any amino acid residue and wherein said peptides are each tethered to one another such that they are shifted relative to one another in the backbone direction, and wherein the peptide trimer has a single-stranded region or a double-stranded region which is longer than a triple-stranded region.

2. (Original) The peptide trimer according to claim 1, wherein the three peptides are tethered to one another via a disulfide bond.

3. (Original) The peptide trimer according to claim 1 or 2, wherein among the three peptides, two peptides each have one Cys residue and the other one peptide has two Cys residues.

4. (Previously Presented) The peptide trimer according to claim 1, wherein 30% or more of X is Pro and 30% or more of Y is Pro or Hyp in the whole molecule of the peptide trimer.

5. (Withdrawn) A method of producing the peptide trimer according to claim 1, comprising the steps of:

preparing a first peptide having one Cys residue, a second peptide having two Cys residues, one of which has a protected SH group, and a third peptide having one Cys residue;

forming a peptide dimer by linking the first peptide to the second peptide via a disulfide bond;

activating the protected SH of the second peptide by converting the protecting group; and linking the peptide dimer and the third peptide via a disulfide bond.

6. (Previously Presented) A molecular aggregate having a triple helix structure comprised of the peptide trimer according to claim 1.

7. (Withdrawn) A method of producing the molecular aggregate according to claim 6, comprising holding a solution of the peptide trimer according to claim 1 at a temperature between 0 and 40°C for 1 hour or longer.

8. (New) The synthetic peptide trimer of claim 1 wherein each of the three peptides has a length of 10 to 60 amino acid residues in total.

9. (New) The synthetic peptide trimer of claim 1 wherein each of the three peptides has a length of 15 to 40 amino acid residues in total.

10. (New) The synthetic peptide trimer of claim 1 wherein each of the three peptides has a length of 20 to 30 amino acid residues.

11. (New) The synthetic peptide trimer of claim 1 wherein at least one of the three peptides has the structure H-(Gly-X-Y)₇-Gly-Pro-Cys(SH)-OH, wherein X and Y can be any amino acid and SH indicates a disulfide bond.

12. (New) The synthetic peptide trimer of claim 1 wherein at least one of the three peptides has the structure disclosed in any one of SEQ ID NOs: 1-6.

13. (New) The synthetic peptide trimer of claim 1 wherein at least one of the three peptides has the structure H-Hyp-(Gly-X-Y)₃-Gly-Cys(Acm)-Cys(SH)- (Gly-X-Y)₃-Gly-Pro-OH, wherein X and Y can be any amino acid and SH indicates a disulfide bond.

14. (New) The synthetic peptide trimer of claim 1 wherein at least one of the three peptides has the structure H-Cys(SH)-(Gly-X-Y)₇-Hyp-Gly-OH, wherein X and Y can be any amino acid and SH indicates a disulfide bond.

15. (New) The synthetic peptide trimer of claim 1 wherein at least one of the three peptides has the structure H-Hyp-(Gly-X-Y)₅-Gly-Pro-Cys(SH)-(Gly-X-Y)₁-Gly-Pro-OH, wherein X and Y can be any amino acid and SH indicates a disulfide bond.

16. (New) The synthetic peptide trimer of claim 1 wherein at least one of the three peptides has the structure H-Hyp-(Gly-X-Y)₁-Gly-Cys(Acm)-Hyp-(Gly-X-Y)₃-Gly-Pro-Cys(SH)-(Gly-X-Y)₁-Gly-Pro-OH, wherein X and Y can be any amino acid and SH indicates a disulfide bond.

17. (New) The synthetic peptide trimer of claim 1 wherein at least one of the three peptides has the structure H-Hyp-(Gly-X-Y)₁-Gly-Cys(SH)-Hyp-(Gly-X-Y)₅-Gly-Pro-OH, wherein X and Y can be any amino acid and SH indicates a disulfide bond.